



Installing PowerBook G4 Titanium Mercury Logic Board

Tools used in this guide

- [5mm Nut Driver](#) (1)
- [Phillips #0 Screwdriver](#) (1)
- [T8 Torx Screwdriver](#) (1)

Parts relevant to this guide

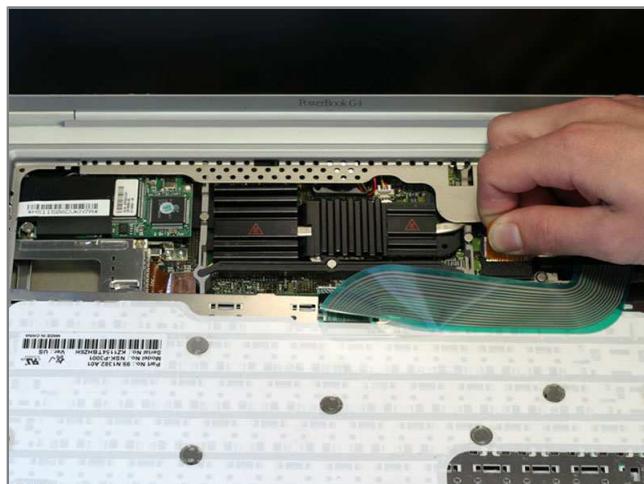
- [G4 Titanium Mercury 500 MHz Logic Board](#) (1)
- [G4 Titanium Mercury 400 MHz Logic Board](#) (1)

The motherboard - which includes all ports and the DC-In board - is fairly easy to change.



Step 1 - Keyboard

- Remove the battery.
- Turn the keyboard locking screw so that it is parallel to the space bar.
- Pull the keyboard release tabs toward you and lift up on the keyboard until it pops free.



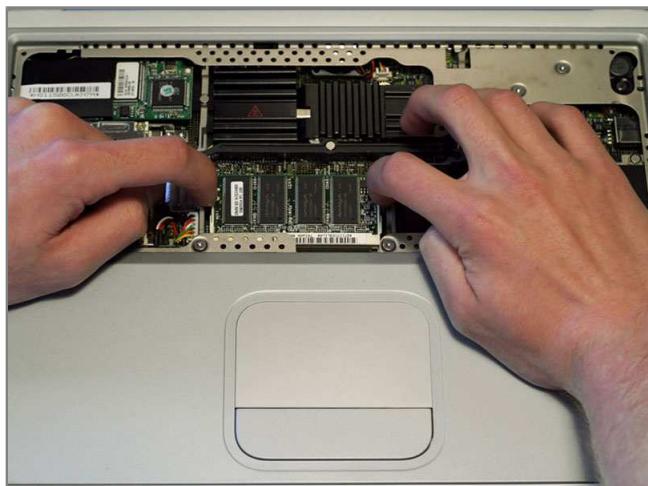
Step 2

- Rest the keyboard face down on the trackpad area.
- Disconnect the keyboard connector from the logic board.



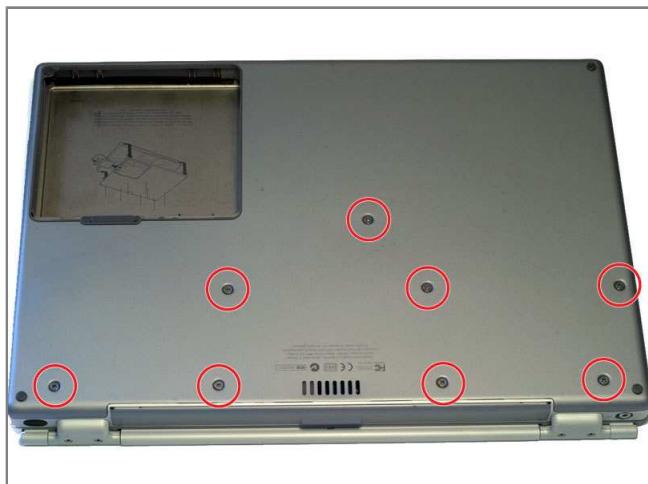
Step 3

- Your laptop should look approximately like this.



Step 4 - RAM

- Release the tabs on each side of the RAM chip at the same time. These tabs lock the chip in place and releasing them will cause the chip to "pop" up.
- Pull the RAM chip out.
- Repeat this process if a second RAM chip is installed.



Step 5 - Lower Case

- Turn the G4 over.
- Remove the eight Phillips screws from the lower case.



Step 6

- Using your thumbs, slide the lower case away from you.
- The lower case may stick in the front on a tab just above the center of the DVD drive. Be careful as you work the case off, or you may break the thin strip of plastic just above the drive.
- Lift the lower case off.





Step 7

- Your laptop should look approximately like this.



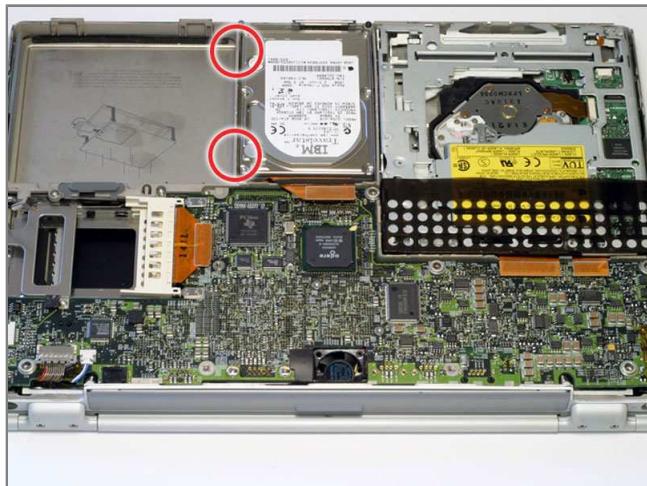
Step 8 - Airport Card

- Skip this step if your computer does not have an Airport card.
- Firmly grasp the plastic tab attached to the Airport card and pull up and to the left.
- Disconnect the antenna cable from the left side of the Airport card.



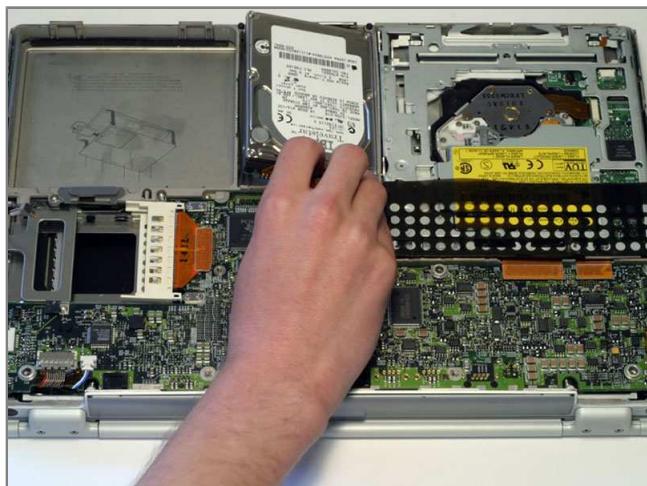
Step 9 - Hard Drive

- Disconnect the hard drive ribbon from the logic board using a spudger or the tip of your finger.



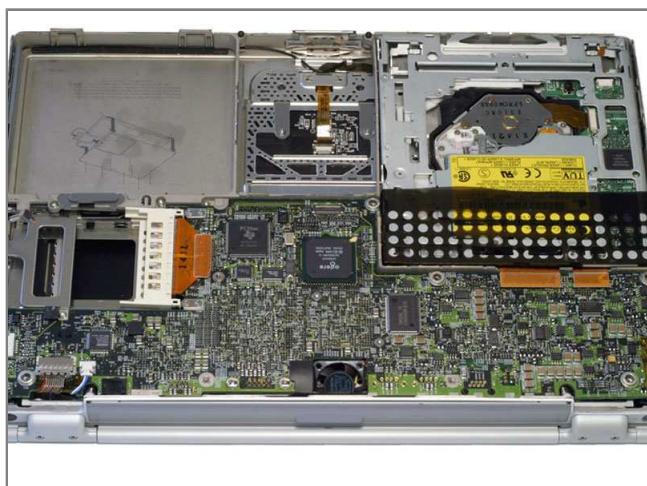
Step 10

- To free the hard drive, remove the two T8 Torx screws from the right wall of the battery housing.



Step 11

- Remove the hard drive by gently grasping the orange ribbon cable and lifting the left edge up and out of the computer.
- There are four rubber bumpers that fit over the hard drive screws. Ensure that these bumpers come out when you remove the hard drive.



Step 12

- Your laptop should look approximately like this.



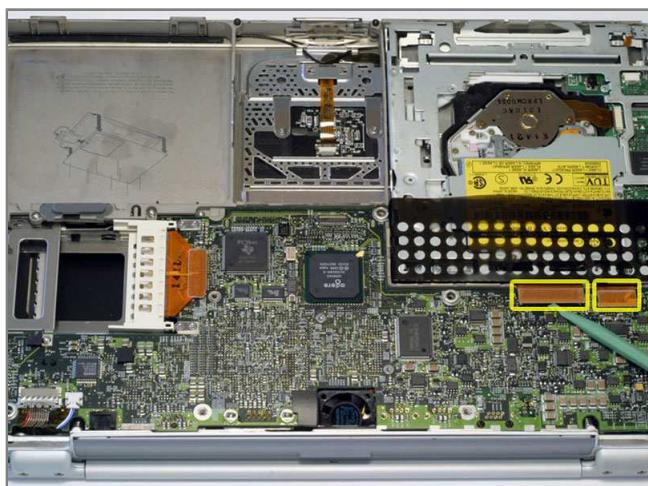
Step 13 - DVD Drive

- Before continuing, place a soft cloth on your work surface to rest the computer on. Turn the G4 over, making sure the DVD drive doesn't fall out.
- Carefully peel the adhesive strip away from the DVD drive. The plastic dust shield covering the DVD drive is easily damaged. Try to start at the four corners and work toward the center.



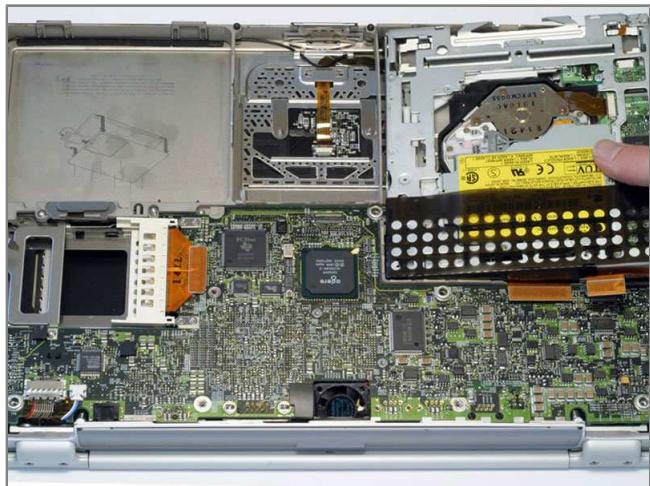
Step 14

- Bend the silver metal EMI clip so that it is vertical. This part may fall out after removing the DVD drive.
- The EMI clip is not essential for reassembling the computer. If the clip falls out, don't worry about putting it back in.



Step 15

- Turn the G4 over.
- Disconnect both orange ribbon cables from the logic board using a spudger or the tip of your finger.



Step 16

- Remove the DVD drive by lifting the right edge up and out of the computer.
- If you have a CD or any other object jammed in your optical drive, we have an [optical drive repair guide](#).



Step 17 - Modem

- Turn the G4 over.
- Using a 5 mm nut driver or needle-nose pliers, remove the hex nut from the modem.



Step 18

- Lift the modem out by pulling up and to the right.
- The plastic shielding on the modem may catch on the computer's case. Rocking the modem from side to side will help free the modem.





Step 19

- Disconnect the connector cable from the modem.



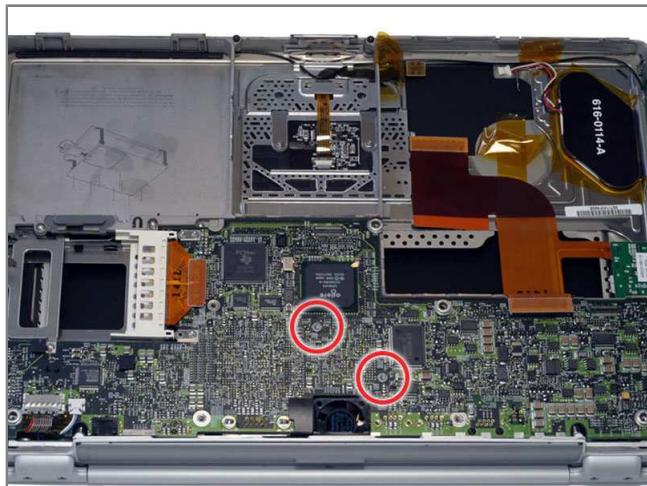
Step 20 - Logic Board

- Turn the G4 over and rest it on a soft cloth.
- Disconnect the multicolored fan connector and battery connector from the logic board.
- Disconnect the orange PC card cage connector from the logic board.



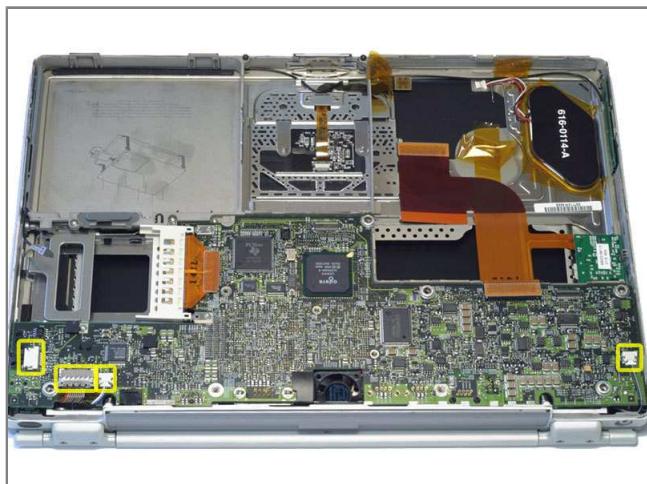
Step 21

- Remove the single T8 Torx screw located next to the PC Card cage.



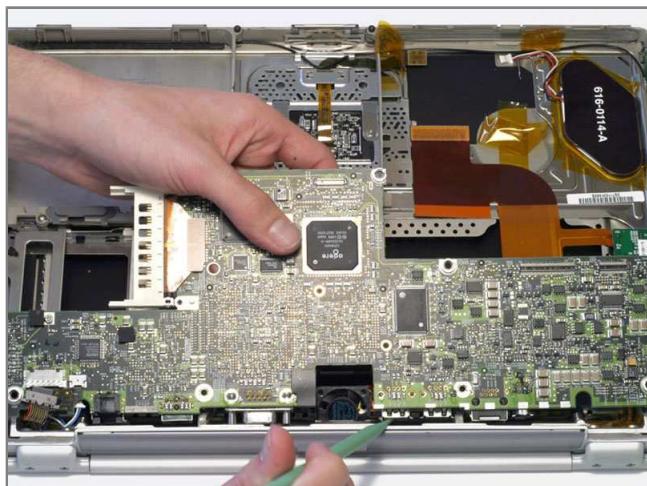
Step 22

- Turn the G4 over.
- Remove the two T8 Torx screws from the middle of the logic board.



Step 23

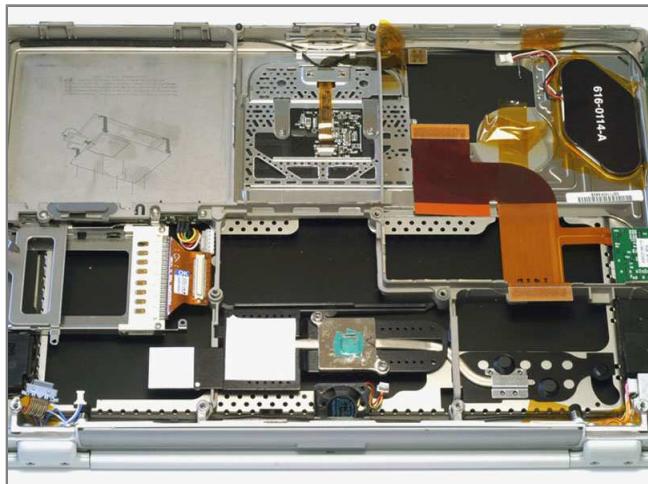
- Disconnect the four indicated connectors from the logic board, removing tape as necessary.



Step 24

- Carefully lift the logic board up and pull it away from you. The logic board may catch on the back panel ports liner. If this occurs, use a spudger or non-metal tool to free the logic board.
- This step requires some force, but if the logic board will not come up, make sure you have removed all screws and connectors necessary.
- Remove the logic board from the computer.





Step 25

- Your laptop should look approximately like this.

To reassemble your device, follow these instructions in reverse order.

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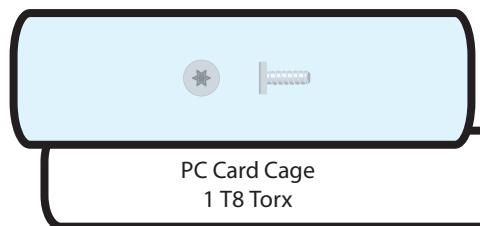
Lower Case
8 Phillips



PC Card Cage
1 T8 Torx



Hard Drive
2 T8 Torx



PC Card Cage
1 T8 Torx

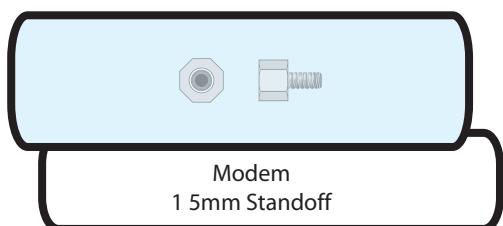


HD Replacement
2 T8 Torx

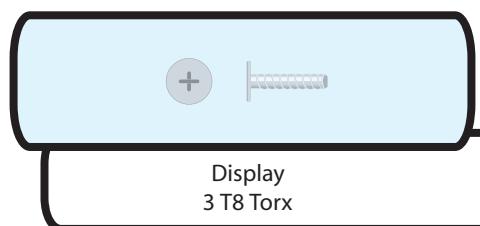
To organize your screws, simply place each screw in the appropriate box as you remove them from your laptop.

If you are not planning on immediately reassembling your laptop, you may want to tape the screws to this paper.

Due to model variations, the screws you remove may differ slightly from this guide.



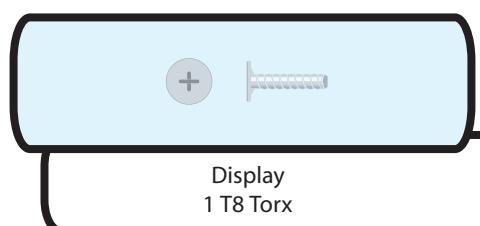
Modem
1 5mm Standoff



Display (clutch covers)
4 T8 Torx



Logic Board (top)
1 T8 Torx



Display
3 T8 Torx



Logic Board (bottom)
2 T8 Torx



Display
1 T8 Torx



Inverter Board
1 T8 Torx